

This invention relates to a new member of a recently recognized TWIK potassium⁺ channel family, herein identified as TASK. For TWIK-related acid-sensitive K⁺ channel. This is the first cloned mammalian channel that produces K⁺ currents that possesses all the characteristics of background conductances. The inventions also relates to various constructs including the TASK or related human potassium channel family, and their uses.